

Extremal hypergraphs and hypergraph colorings

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Extremal graph results are strongly related to various colorings, while, on the other hand, certain types of colorings are connected to extremal problems. Often the exclusion of some subgraphs is weaker than a given chromatic condition, but the extremal graphs for the forbidden family and for the chromatic condition are the same. In these cases we often have some stability results as well, expressing that the chromatic conditions and extremal problems have the same extremal graphs because of some deeper reasons.

In my lecture I will speak about this connection and also about some particular cases of hypergraph extremal problems. Some of the results will be joint with Füredi, the others with Füredi and Pikhurko.